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GP
NHG910024

Project No: NHP04083

Via Federal Express – Next Business Day Delivery

October 20, 2005

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

OCT 21 2005

RE: Notice of Intent for Coverage under the Remediation General Permit
NHDOT Hampton Toll Plaza, Hampton, New Hampshire
NHDES Permit No: TSWP-198904009-H-02
NPDES Permit Exclusion No: NH-03I-013

Dear Sir/Madame:

On behalf of the Operator of this discharge system (the New Hampshire Department of Transportation [NHDOT]) and as its Agent carrying out the day-to-day operation and maintenance of this system, Jacques Whitford Company, Inc. (Jacques Whitford) has attached the above-referenced Notice of Intent (NOI). In support of this NOI, attached please find:

- mass loading calculations;
- water quality impairment determination;
- threatened and endangered species determination;
- raw laboratory analytical report;
- NPDES Exclusion/TSWDP Status determination;
- discharge monitoring data for the last year; and
- Figures
 - 1 (Site Location Map)
 - 2 (Sump Treatment System Schematic)
 - 3 (Sump Treatment System As-Built)
 - 4 (Site Plan).

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A brief history of the origin of this discharge is included below, followed by a request for a reduction in sampling frequency from monthly to tri-annually.

**Jacques
Whitford**

An Environment
of Exceptional
Solutions



In the late-1980s, evidence of a release from an on-site, 10,000-gallon fuel oil underground storage tank (UST) precipitated the replacement of this UST and the conduct of multiple phases of investigation. The New Hampshire Department of Environmental Services (NHDES) opened a Leaking Underground Storage Tank (LUST) case for this Site in 1989. At the time, limited amounts of free product were reported in a sump located near the UST. That sump was equipped with a sump pump and was used to keep the tunnel beneath the toll plaza free of water from precipitation events. Apparently, the sump also collected a limited amount of free product associated with the original UST release. The sump pump lifted the fluids in the sump to a drainage pipe that then discharged into a wet area adjacent to the Toll Plaza. No free product has been measured in the sump since 1998. In January 2002, a granular activated carbon (GAC) treatment system was installed to treat the discharge from the sump. Since the issuance of the Temporary Surface Water Discharge Permit (TSWDP) for this system (dated August 26, 2003), there have been no exceedances of applicable Standards from the sump discharge (i.e., the post-treatment samples). Further, the last year of monthly monitoring of the sump (i.e., the pre-treatment samples) showed no exceedances of applicable standards. The only analytes required by the TSWDP were volatile organic compounds (VOCs). Because of the lack of petroleum-VOC related detections at the Site, the LUST Case was closed for this Site in 2003. The sump discharge continued, of course, and remains in operation today, as does the GAC treatment system.

Sporadic detections of trichloroethene (TCE) at levels up to 14 ug/L have been detected in one monitoring well at the Site. No discrete source for these TCE detections has been identified. TCE and several of its breakdown products have also been observed historically in the sump. As mentioned above, however, the last year of monthly monitoring of the sump (i.e., the pre-treatment samples) showed no exceedances of applicable standards. The NHDOT applied for a Groundwater Management Permit (GMP) in September 2005 to accommodate the continued management of these sporadic TCE detections.

Based on the lack of VOC exceedances in the sump over the last year of monitoring, on behalf of the NHDOT, we respectfully request a reduced sampling frequency for VOCs, from monthly to triannually, for this discharge. We believe this reduction is warranted in light of the nature of this discharge and the monitoring data collected over the last year.

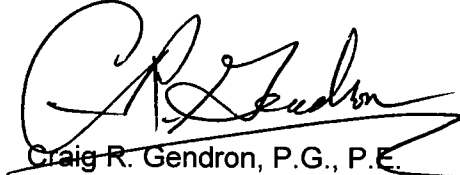


Sir/Madame
October 20, 2005
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We trust that this information is sufficient for your needs. If you have questions or comments, or require any additional information, please contact one of the undersigned at (603) 431-4899.

Sincerely,

JACQUES WHITFORD



Craig R. Gendron, P.G., P.E.
VP/Principal Engineer – US

CRG:cgl

attachments

cc: Dale O'Connell, NHDOT w/attachments via Regular US Mail
NHDES, Water Division w/attachments via Regular US Mail
Town Clerk, Town of Hampton, NH w/attachments via Regular US Mail



B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site: Hampton Toll Plaza		Facility/site address: Interstate 95	
Location of facility/site: longitude: -70.8556 latitude: 42.9628	Facility SIC code(s): 4785	Street: Interstate 95	
b) Name of facility/site owner: do'connell@dot.state.nh.us		Town: Hampton	
Email address of owner: New Hampshire Department of Transportation	State: New Hampshire	Zip: 03842	County: Rockingham
Telephone no. of facility/site owner: 603-271-3226			
Fax no. of facility/site owner: 603-271-3914	Owner is (check one): 1. Federal___ 2. State/Tribal X		
Address of owner (if different from site): John O. Morton Building	3. Private___ 4. other, if so, describe:		
Street: Seven Hazen Drive			
Town: Concord	State: NH	Zip: 03302	County: Merrimack
c) Legal name of operator: New Hampshire Department of Transportation	Operator telephone no: 603-271-3226		
	Operator fax no.: 603-271-3914	Operator email: do'connell@dot.state.nh.us	
Operator contact name and title: Dale O'Connell, P.G. - Contamination Program Manager			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes X No___, if "yes," number: NH-031-013			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No X , if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes X No___			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes___ No___ N/A			

<p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes X No <u> </u></p> <p>If "yes," please list: Temporary Surface Water Discharge Permit</p> <p>1. site identification # assigned by the state of NH or MA: DES # 198904009</p> <p>2. permit or license # assigned: TSWP-198904009-H-02</p> <p>3. state agency contact information: name, location, and telephone number: NHDES, 29 Hazen Drive, Concord, NH 03302 - 603-271-3644</p>	<p>f) Is the site/facility covered by any other EPA permit, including:</p> <p>1. multi-sector storm water general permit? Y <u> </u> N X, if Y, number: <u> </u></p> <p>2. phase I or II construction storm water general permit? Y <u> </u> N X, if Y, number: <u> </u></p> <p>3. individual NPDES permit? Y <u> </u> N X, if Y, number: <u> </u></p> <p>4. any other water quality related permit? Y <u> </u> N X, if Y, number: <u> </u></p>
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: * See Below		
b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.001</u> Average flow <u>0.0007</u> Is maximum flow a design value ? Y <u> </u> N X For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. <u>-70.8556</u> lat. <u>42.9617</u> ; pt.2: long. <u> </u> lat. <u> </u> ; pt.3: long. <u> </u> lat. <u> </u> ; pt.4: long. <u> </u> lat. <u> </u> ; pt.5: long. <u> </u> lat. <u> </u> ; pt.6: long. <u> </u> lat. <u> </u> ; pt.7: long. <u> </u> lat. <u> </u> ; pt.8: long. <u> </u> lat. <u> </u> ; etc.		
4) If hydrostatic testing, total volume of the discharge (gals): <u>N/A</u>		5) Is the discharge intermittent X or seasonal <u> </u> ? Is discharge ongoing Yes X No <u> </u> ?
c) Expected dates of discharge (mm/dd/yy): start <u>on-going</u> end <u>indeterminate</u>		
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See Figures 1 through 4, attached		

*A 10,000-gallon UST used for fuel oil storage was removed and replaced at the subject site in 1989 because there was evidence of a leak from the UST. The evidence of the leak consisted of free product accumulating in a sump in the toll booth tunnel. This sump is an integral component of the dewatering system for the toll plaza tunnel. Inspection of the drainage plans indicated the sump was equipped with a pump, which lifted the sump contents to a drainage pipe that discharged into a nearby wetland to the southeast. A groundwater treatment system was installed at the Site in late-2001 and went into full-time operation on January 30, 2002. This treatment system continues to operate at the Site in accordance with a Temporary Surface Water Discharge Permit (TSWP) issued by the New Hampshire Department of Environmental Services on August 23, 2003 (referenced above). Although this permit expired on April 25, 2004, monthly operation and maintenance (O&M) visits, monthly sampling events, and quarterly reporting has continued by Jacques Whitford, as agent for the NHDOT, under an agreement with the NHDES and EPA (see attached correspondences and Cover Letter to this NOI).

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only X*	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed. **(Lab Data attached, Mass Loading Calculations attached)**

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		X	1	grab	160.2	4000	51000	0.14	51000	0.08
2. Total Residual Chlorine	X		1	grab	field lab	---	---	---	---	---
3. Total Petroleum Hydrocarbons		X	1	grab	8015B	50	1020	0.003	1020	0.002
4. Cyanide		X	1	grab	4500 CN-B/C/E	2	3	8x10⁻⁶	3	5x10⁻⁶
5. Benzene	X		1	grab	8260B	2	---	---	---	---
6. Toluene	X		1	grab	8260B	2	---	---	---	---
7. Ethylbenzene	X		1	grab	8260B	2	---	---	---	---
8. (m,p,o) Xylenes	X		1	grab	8260B	2	---	---	---	---
9. Total BTEX ⁴	X		1	grab	8260B	2	---	---	---	---

⁴ BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2- Dibromo-methane)	X		1	grab	504.1	0.005	---	---	---	---
11. Methyl-tert-Butyl Ether (MtBE)		X	1	grab	8260B	2	3	8x10 ⁻⁶	3	5x10 ⁻⁶
12. tert-Butyl Alcohol (TBA)	X		1	grab	8260B	20	---	---	---	---
13. tert-Amyl Methyl Ether (TAME)	X		1	grab	8260B	2	---	---	---	---
14. Naphthalene	X		1	grab	8260B	2	---	---	---	---
15. Carbon Tetra-chloride	X		1	grab	8260B	2	---	---	---	---
16. 1,4 Dichlorobenzene	X		1	grab	8260B	2	---	---	---	---
17. 1,2 Dichlorobenzene	X		1	grab	8260B	2	---	---	---	---
18. 1,3 Dichlorobenzene	X		1	grab	8260B	2	---	---	---	---
19. 1,1 Dichloroethane	X		1	grab	8260B	2	---	---	---	---
20. 1,2 Dichloroethane	X		1	grab	8260B	2	---	---	---	---
21. 1,1 Dichloroethylene	X		1	grab	8260B	2	---	---	---	---
22. cis-1,2 Dichloro-ethylene	X		1	grab	8260B	2	---	---	---	---
23. Dichloromethane (Methylene Chloride)	X		1	grab	8260B	5	---	---	---	---
24. Tetrachloroethylene	X		1	grab	8260B	2	---	---	---	---

⁵EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		1	grab	8260B	2	---	---	---	---
26. 1,1,2 Trichloroethane	X		1	grab	8260B	2	---	---	---	---
27. Trichloroethylene	X		1	grab	8260B	2	---	---	---	---
28. Vinyl Chloride	X		1	grab	8260B	2	---	---	---	---
29. Acetone	X		1	grab	8260B	10	---	---	---	---
30. 1,4 Dioxane	X		1	grab	8260B	30	---	---	---	---
31. Total Phenols		X	1	grab	420.1	10	20	6x10 ⁻⁵	20	3x10 ⁻⁵
32. Pentachlorophenol	X		1	grab	615	1	---	---	---	---
33. Total Phthalates ⁶ (Phthalate esthers)	X		1	grab	625	2	---	---	---	---
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		1	grab	625	2	---	---	---	---
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	X		1	grab	625	0.2	---	---	---	---
b. Benzo(a) Pyrene	X		1	grab	625	0.2	---	---	---	---
c. Benzo(b) Fluoranthene	X		1	grab	625	0.2	---	---	---	---
d. Benzo(k) Fluoranthene	X		1	grab	625	0.2	---	---	---	---
e. Chrysene	X		1	grab	625	0.2	---	---	---	---

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		1	grab	625	0.2	---	---	---	---
g. Indeno(1,2,3-cd) Pyrene	X		1	grab	625	0.2	---	---	---	---
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene		X	1	grab	625	0.2	0.8	2×10^{-6}	0.8	1×10^{-6}
i. Acenaphthylene	X		1	grab	625	0.2	---	---	---	---
j. Anthracene	X		1	grab	625	0.2	---	---	---	---
k. Benzo(ghi) Perylene	X		1	grab	625	0.2	---	---	---	---
l. Fluoranthene	X		1	grab	625	0.2	---	---	---	---
m. Fluorene		X	1	grab	625	0.2	1.8	5×10^{-6}	1.8	3×10^{-6}
n. Naphthalene-	X		1	grab	625	0.2	---	---	---	---
o. Phenanthrene	X		1	grab	625	0.2	---	---	---	---
p. Pyrene	X		1	grab	625	0.2	---	---	---	---
37. Total Polychlorinated Biphenyls (PCBs)	X		1	grab	625	0.6	---	---	---	---
38. Antimony	X		1	grab	625	2	---	---	---	---
39. Arsenic		X	1	grab	625	1	40	0.0001	40	0.00007
40. Cadmium		X	1	grab	625	2	9	3×10^{-5}	9	2×10^{-5}
41. Chromium III		X	1	grab	625	2	2	6×10^{-6}	2	3×10^{-6}
42. Chromium VI	X		1	grab	625	20	---	---	---	---

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		X	1	grab	3030F/3113B	10	30	8x10 ⁻⁵	30	5x10 ⁻⁵
44. Lead		X	1	grab	3030E/3113B	1	8	2x10 ⁻⁵	8	1x10 ⁻⁵
45. Mercury	X		1	grab	3112B	0.2	---	---	---	---
46. Nickel		X	1	grab	3030E/3113B	2	8	2x10 ⁻⁵	8	1x10 ⁻⁵
47. Selenium		X	1	grab	3113B	1	3	8x10 ⁻⁶	3	5x10 ⁻⁶
48. Silver	X		1	grab	3030E/3113B	0.3	---	---	---	---
49. Zinc		X	1	grab	3030F/3113B	10	240	0.0007	240	0.0004
50. Iron		X	1	grab	3030F/3113B	1000	33000	0.09	33000	0.05
Other (describe): sec-butylbenzene		X	1	grab	8260B	2	3	8x10 ⁻⁶	3	5x10 ⁻⁶
isopropylbenzene		X	1	grab	8260B	2	1	3x10 ⁻⁶	1	2x10 ⁻⁶

c) For discharges where **metals** are believed present, please fill out the following:

<p><i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y <u>X</u> N _____</p>	<p>If yes, which metals? Ar, Cd, Cr, Cu, Pb, Ni, Se, Zn, Fe</p>
<p><i>Step 2:</i> For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: <u>Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Zinc, Iron</u> DF: <u>0.9</u></p>	<p>Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y <u>X</u> N _____ If "Yes," list which metals: Ar, Cd, Cr, Cu, Pb, Ni, Se, Zn, Fe</p>

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter X	GAC filter X
	Chlorination	Dechlorination	Other (please describe):			
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system: Average flow rate of discharge <u>0.30 gpm</u> Maximum flow rate of treatment system <u>0.51 gpm</u> Design flow rate of treatment system <u>4 gpm</u>						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): NA						

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct_____	Within facility__	Storm drain X	River/brook_____	Wetlands_____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: *See below						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: See Figures 1 and 4 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water <u>Class B surface water</u> ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>0</u> cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No X If yes, for which pollutant(s)? (See attached) Is there a TMDL? Yes____ No X If yes, for which pollutant(s)?						

***The treatment system consists of a submersible pump that discharges recovered groundwater from a sump into a bag filter and two granulated activated carbon (GAC) units. The treated groundwater is then gravity-conveyed to the existing stormwater drainage system that discharges to a nearby wetland to the southeast. Two catch basins and a manhole are located along the drainage "run" from the treatment system to the wetland. The drainage pipe discharges to the wetland via a 15-inch outfall. According to the Temporary Surface Water Discharge (TSWP) issued by the NHDES, the receiving water is Old River Stream.**

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒ (See attached)
Has any consultation with the federal services been completed? No ☐ or is consultation underway? Yes ☐ No ☐ (See attached)
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? ☐ or written concurrence ☒ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
- b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes ☐ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☐

7. Supplemental information. :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: HAMPTON TOLL PLAZA, HAMFTON, NH

Operator signature:



Title: CONTAMINATION PROGRAM MANAGER

Date:

10/21/05

MASS LOADING CALCULATIONS



Hampton Toll Plaza
Hampton , NH
LOI Support

Compound	[C] in ug/L	kg/L	Ave Q (gpm)	Ave Q (gpd)	Ave Q (Lpd)	Max Q (gpm)	Max Q (gpd)	Max Q (Lpd)	Ave M/day (kg)	Max M/day (kg)
TSS	51000	0.000051	0.3	432	1635.12	0.51	734.4	2779.704	0.08339112	0.141764904
TPH	1020	0.0000102	0.3	432	1635.12	0.51	734.4	2779.704	0.001667822	0.002835298
Cyanide	3	0.000000003	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-06	8.33911E-06
MtBE	3	0.000000003	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-06	8.33911E-06
Total Phenols	20	0.00000002	0.3	432	1635.12	0.51	734.4	2779.704	3.27024E-05	5.55941E-05
Acenaphthene	0.8	8E-10	0.3	432	1635.12	0.51	734.4	2779.704	1.3081E-06	2.22376E-06
Fluorene	1.8	1.8E-09	0.3	432	1635.12	0.51	734.4	2779.704	2.94322E-06	5.00347E-06
Arsenic	40	0.00000004	0.3	432	1635.12	0.51	734.4	2779.704	6.54048E-05	0.000111188
Cadmium	9	0.000000009	0.3	432	1635.12	0.51	734.4	2779.704	1.47161E-05	2.50173E-05
Chromium III	2	0.000000002	0.3	432	1635.12	0.51	734.4	2779.704	3.27024E-06	5.55941E-06
Copper	30	0.00000003	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-05	8.33911E-05
Lead	8	0.000000008	0.3	432	1635.12	0.51	734.4	2779.704	1.3081E-05	2.22376E-05
Nickel	8	0.000000008	0.3	432	1635.12	0.51	734.4	2779.704	1.3081E-05	2.22376E-05
Selenium	3	0.000000003	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-06	8.33911E-06
Zinc	240	0.00000024	0.3	432	1635.12	0.51	734.4	2779.704	0.000392429	0.000667129
Iron	33000	0.000033	0.3	432	1635.12	0.51	734.4	2779.704	0.05395896	0.091730232
Sec-butylbenzene	3	0.000000003	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-06	8.33911E-06
isopropylbenzene	1	0.000000001	0.3	432	1635.12	0.51	734.4	2779.704	1.63512E-06	2.7797E-06

WATER QUALITY IMPAIRMENT DETERMINATION



Chyna Levesque - 2005-023; NHDOT, Hampton Toll Booth, NOI for Remediation General Permit

From: "Comstock, Gregg" <gcomstock@des.state.nh.us>
To: "Chyna Levesque" <Chyna.Levesque@jacqueswhitford.com>
Date: 10/6/2005 1:17 PM
Subject: 2005-023; NHDOT, Hampton Toll Booth, NOI for Remediation General Permit
CC: "Foss, Margaret" <mfoss@des.state.nh.us>, "Andrews, Jeff" <jandrews@des.state.nh.us>

Thank you for contacting us regarding the above project in accordance with the requirements of the Environmental Protection Agency's (EPA) NPDES Remediation General Permit. Specifically, we understand that you need to know if the NHDOT Hampton Toll Plaza fuel oil treatment system discharges to a 303(d) water quality impaired or limited water so that you can complete the Notice of Intent Application for the subject general permit.

Based on the information provided, the site is located in Hampton, NH (town of Hampton Map # 29). A temporary surface water discharge permit was issued for this project on August 26, 2003 and expired on April 25, 2004. Although the permit has expired, weekly O&M visits, monthly sampling and quarterly reporting has continued under an agreement with NHDES and EPA. Pollutants of concern in the discharge are primarily VOC, MTBE, and TCE. The treatment system discharges to a closed drainage system which outlets to a wetlands which discharges to the Old River.

In response please note that according to our latest assessment (2004), the Old River is not listed as impaired for any pollutants which are likely to be generated from the treatment system (<http://www.des.state.nh.us/wmb/swqa/2004/default.asp?go=summary> <<http://www.des.state.nh.us/wmb/swqa/>>, Volume 3, Appendix A). We have also checked our TMDL list and have found that no TMDLs have been completed or are currently being developed which would impact this project. (see <http://www.des.state.nh.us/WMB/TMDL/nhstatus.htm>). Please be aware, however, that we reassess all of our surface waters every two years. Should new data indicate impairment and require a TMDL in the future, it's possible that that this site (as well as others in the area) may be required to reduce loadings for any pollutant(s) causing impairment at that time.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Gregg Comstock, P.E.
Supervisor, Water Quality Planning Section
NH Department of Environmental Services
Watershed Management Bureau
Phone: (603) 271-2983
Fax: (603) 271-7894
email: gcomstock@des.state.nh.us
Address: 29 Hazen Drive, PO Box 95

Concord, NH 03302-0095

Gregg Comstock, P.E.
Supervisor
NHDES, Watershed Management Bureau
Water Quality Planning Section
P.O. Box 95, 29 Hazen Drive
Concord, New Hampshire 03302-0095
Tel: 603-271-2983
Fax: 603-271-7894
email: gcomstock@des.state.nh.us

-----Original Message-----

From: Chyna Levesque [<mailto:Chyna.Levesque@jacqueswhitford.com>]
Sent: Monday, October 03, 2005 2:51 PM
To: Comstock, Gregg
Subject: Hampton Toll Plaza Receiving Water 303(d) Question

Mr. Comstock,

Thank you for speaking to me this afternoon regarding 303(d) listed waters. As discussed, I need to find out if the receiving water for the Hampton Toll Plaza treatment system is a listed 303(d) water quality impaired or limited water. I need this information for a Title V, Notice of Intent Application for a Remediation General Permit which needs to be submitted to the EPA by October 10th. I have attached some summary information as well as a site plan which should answer any questions regarding this project. As I mentioned, this site was previously issued a Temporary Surface Water Discharge Permit (# TSWP-198904009-H-02) which indicates the system discharges to Old River Stream.

Please let me know if you have any questions.

Thank you again,
Chyna

Chyna Levesque
Program Administrator
Jacques Whitford Company, Inc.
27 Congress Street
Portsmouth, NH 03801
p: 603-431-4899 ext. 333
f: 603-431-5982
email: chyna.levesque@jacqueswhitford.com

THREATENED AND ENDANGERED SPECIES DETERMINATION



Chyna Levesque - Re: Hampton Toll Plaza - Threatened & Endangered Species

From: <Anthony_Tur@fws.gov>
To: "Chyna Levesque" <Chyna.Levesque@jacqueswhitford.com>
Date: 10/4/2005 11:17 AM
Subject: Re: Hampton Toll Plaza - Threatened & Endangered Species

Chyna,

"No Known Species Present"

I will get a letter out to you w/in the month. Let me know if you need more.

Tony

Anthony Tur
Endangered Species Biologist
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301

Phone (603) 223-2541 x.24
Anthony_Tur@fws.gov

"Chyna Levesque"
<Chyna.Levesque@jacqueswhitford.com>
To
<anthony_tur@fws.gov>
cc
10/03/2005 06:43 PM
Subject
Hampton Toll Plaza - Threatened & Endangered Species

**** High Priority ****

Mr. Tur,

Thank you so much for speaking to me this afternoon. As discussed, as part of the Remediation General Permit - Notice of Intent application we are submitting to the EPA, we need to find out if there are any listed

threatened or endangered species or designated critical habitat in proximity to the discharge of the Hampton Toll Plaza treatment system. I have attached a brief project summary and site location for your information. As I mentioned, we need to submit this application to the EPA by 10/10, so any information you could provide prior to that date would help tremendously.

Again, thank you very much,
Chyna

Chyna Levesque
Program Administrator
Jacques Whitford Company, Inc.
27 Congress Street
Portsmouth, NH 03801
p: 603-431-4899 ext. 333
f: 603-431-5982
email: chyna.levesque@jacqueswhitford.com

[attachment "Hamp Tolls Site FIG1 - SITE LOCATION (1).pdf" deleted by Anthony Tur/R5/FWS/DOI] [attachment "FWS MEMO.doc" deleted by Anthony Tur/R5/FWS/DOI]

RAW LABORATORY ANALYTICAL REPORT



Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

Report Number: 54988

Revision: Rev. 0

Re: Hampton Tolls

Enclosed are the results of the analyses on your sample(s). Samples were received on 29 September 2005 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

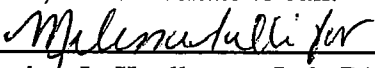
<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
54988-1	09/29/05	Pre-GAC	Cyanide	
	09/29/05	Pre-GAC	EPA 504	
	09/29/05	Pre-GAC	EPA 608 (PCBs only)	
	09/29/05	Pre-GAC	EPA 615 Chlorinated Herbicides	
	09/29/05	Pre-GAC	EPA 625 (BN only)	
	09/29/05	Pre-GAC	EPA 8015 - TPH	
	09/29/05	Pre-GAC	Hexavalent Chromium	
	09/29/05	Pre-GAC	Metals	
	09/29/05	Pre-GAC	Metals Digestion	
	09/29/05	Pre-GAC	Residual Chlorine	
	09/29/05	Pre-GAC	Total Phenols	
	09/29/05	Pre-GAC	Total Suspended Solids	

Sample Receipt Exceptions: Residual Chlorine was tested in the field and upon receipt at the laboratory with Pottasium Iodide paper and the results were non-detect.

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, North Carolina, Virginia, Pennsylvania and is validated by the U.S. Army Corps of Engineers (MRD) and U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature


Stephen L. Knollmeyer Lab. Director

Date

10/6/05

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

October 6, 2005

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:

Field Sample ID: Pre-GAC

Lab Sample ID: 54988-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 09/29/05
Lab Receipt Date: 09/29/05
Extraction Date: 09/30/05
Analysis Date: 10/04/05

ANALYTICAL RESULTS SEMI-VOLATILE ORGANICS

COMPOUND	Quantitation Limit µg/L	Result µg/L
Butyl benzyl phthalate	2	U
Bis (2-ethylhexyl) phthalate	2	U
Di-n-butyl phthalate	2	U
Diethyl Phthalate	2	U
Dimethyl Phthalate	2	U
di-n-octyl-phthalate	2	U
Surrogate Standard Recovery		
d5-nitrobenzene 67 %	2-Fluorobiphenyl 72 %	d14-p-terphenyl 88 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

METHODOLOGY: Sample analysis was conducted according to: 40 CFR Part 136, EPA Method 625.

COMMENTS:

Authorized signature 

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

October 6, 2005

SAMPLE DATA

Lab Sample ID: 54988-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 09/29/05
Lab Receipt Date: 09/29/05
Extraction Date: 09/30/05
Analysis Date: 10/04/05

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:
Field Sample ID: Pre-GAC

ANALYTICAL RESULTS POLYNUCLEAR AROMATICS

COMPOUND	CAS Number	Quantitation Limit µg/L	Results µg/L
Naphthalene	91-20-3	0.2	U
Acenaphthylene	208-96-8	0.2	U
Acenaphthene	83-32-9	0.2	0.8
Fluorene	86-73-7	0.2	1.8
Phenanthrene	85-01-8	0.2	U
Anthracene	120-12-7	0.2	U
Fluoranthene	206-44-0	0.2	U
Pyrene	129-00-0	0.2	U
Benzo[a]anthracene	56-55-3	0.2	U
Chrysene	218-01-9	0.2	U
Benzo[b] fluoranthene	205-99-2	0.2	U
Benzo[k] fluoranthene	207-08-9	0.2	U
Benzo[a] pyrene	50-32-8	0.2	U
Dibenz [a,h] anthracene	53-70-3	0.2	U
Benzo(g,h,i) perylene	191-24-2	0.2	U
Indeno [1,2,3-cd] pyrene	193-39-5	0.2	U
2-Methylnaphthalene	91-57-6	0.2	U
Surrogate Standard Recovery			
d5-nitrobenzene	66 %	2-Fluorobiphenyl	94 %
		d14-p-terphenyl	85 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank			

METHODOLOGY: Sample analysis was conducted according to: 40 CFR Part 136, EPA 625

COMMENTS: Detection limits achieved using Selected Ion Monitoring.

Authorized signature

M. J. Sullivan

October 5, 2005
SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:

Field Sample ID: Pre-GAC

Lab Sample ID: 54988-1

Matrix: Aqueous

Percent Solid: N/A

Dilution Factor: 1.0

Collection Date: 09/29/05

Lab Receipt Date: 09/29/05

Extraction Date: 09/30/05

Analysis Date: 10/01/05

ANALYTICAL RESULTS

DIESEL RANGE ORGANICS (C10-C28)

Result	Units	Quantitation Limit
1020	μg/L	50
<p align="center"><u>Surrogate Standard Recovery</u></p> <p align="center">m-Terphenyl 109 %</p>		
<p>U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank</p>		

METHODOLOGY: Aqueous samples prepared by Separatory Funnel Liquid/Liquid Extraction, "Test Methods for Evaluating Solid Waste," Method 3510C; other matrices prepared by Pressurized Fluid Extraction, "Test Methods for Evaluating Solid Waste," Method 3545.

All matrices analyzed according to "Test Methods for Evaluating Solid Waste, SW-846 Method 8015B"

COMMENTS: Quantitation performed based on a No. 2 Fuel/Diesel Oil standard.

TPH layout

Authorized signature

Melina Hall

Data File : D:\HPCHEM\2\DATA\092905-G\G32379.D

Vial: 60

Acq On : 1 Oct 2005 2:17 am

Operator:

Sample : 54988-1

Inst : Instr. G

Misc :

Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Oct 3 8:28 2005 Quant Results File: T07195A.RES

Quant Method : C:\HPCHEM\2\METHODS\T07195A.M (Chemstation Integrator)

Title : DRO

Last Update : Thu Sep 29 08:48:48 2005

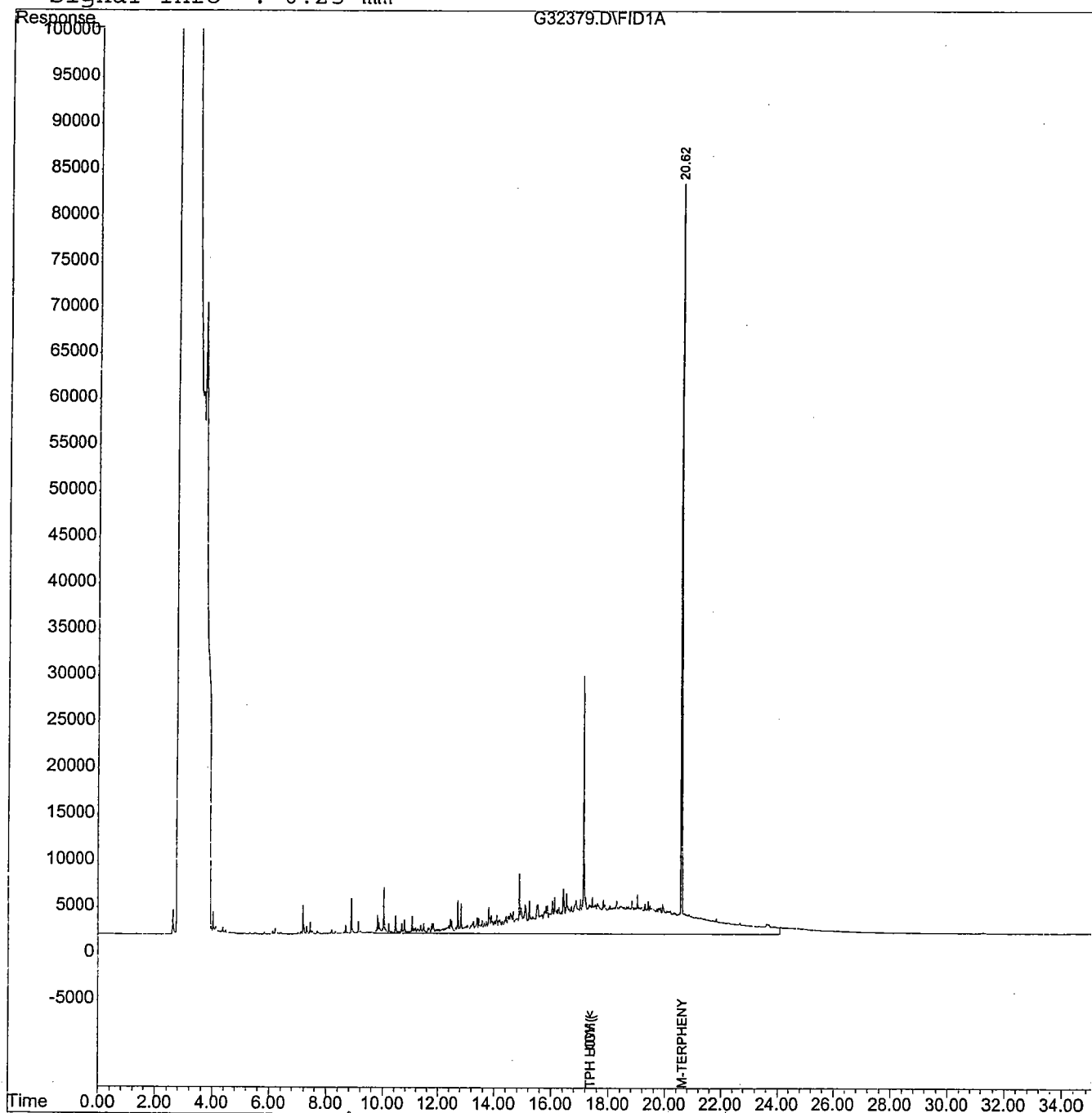
Response via : Multiple Level Calibration

DataAcq Meth : TPHEPH.M

Volume Inj. : 1ul

Signal Phase : Rtx-5MS

Signal Info : 0.25 mm



Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

October 5, 2005

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:

Field Sample ID: Pre-GAC

Lab Sample ID: 54988-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 3.0
Collection Date: 09/29/05
Lab Receipt Date: 09/29/05
Extraction Date: 09/30/05
Analysis Date: 09/29/05

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/L	Results µg/L
PCB-1016	0.6	U
PCB-1221	0.6	U
PCB-1232	0.6	U
PCB-1242	0.6	U
PCB-1248	0.6	U
PCB-1254	0.6	U
PCB-1260	0.6	U
<u>Surrogate Standard Recovery</u>		
2,4,5,6-Tetrachloro-m-xylene	75 %	
Decachlorobiphenyl	32 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8081/82.

COMMENTS:

PCB Report

Authorized signature



Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

October 5, 2005

CLIENT SAMPLE ID

Project Name: Hampton Tolls
Project Number:
Client Sample ID: Pre-GAC

SAMPLE DATA

Lab Sample ID: 54988-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/29/05
Lab Receipt Date: 09/29/05
Extraction Date: 09/29/05
Analysis Date: 09/30/05

ANALYTICAL RESULTS CHLORINATED HERBICIDES

COMPOUND	Quantitation Limit µg/L	Results µg/L
----------	----------------------------	-----------------

Pentachlorophenol	1	U
-------------------	---	---

Surrogate Standard Recovery

2,4-Dichlorophenylacetic acid 80 %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Samples were analyzed according to 40 CFR Part 136, EPA Method 615.

COMMENTS:

Authorized signature

Melina Tuli

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

October 5, 2005

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:

Field Sample ID: Pre-GAC

Lab Sample ID: 54988-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 09/29/05
Lab Receipt Date: 09/29/05
Extraction Date: 09/30/05
Analysis Date: 09/30/05

METHOD 504.1 ANALYTICAL RESULTS

COMPOUND	Quantation Limit µg/L	Results µg/L
1,2-Dibromoethane	0.005	U
1,2,3-Trichloropropane	0.02	U
1,2-Dibromo-3-chloropropane	0.02	U
<u>Surrogate Standard Recovery</u>		
1,1,1,2-Tetrachloroethane	96	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank		

METHODOLOGY: Sample analysis conducted according to EPA 600, Method 504.1.

COMMENTS:

Maine Environmental Laboratory

Report of Analyses

One Main Street Yarmouth, Maine 04096-1107

Tel (207) 846-6569

Fax (207) 846-9066

e-mail: melab@ime.net

Steve Knollmeyer

Analytics Environmental Lab, LLC

195 Commerce Way, Suite E

Portsmouth, NH 03801

October 06, 2005

Page 1 of 2

Report No.: AEL3063-05

Enclosed are the results of the analyses requested on your samples as received by the laboratory. Samples were received in acceptable condition and analyzed within method holding times with all quality control data within laboratory acceptance limits unless noted. Reporting detection limits are the minimum levels for reporting quantitative data. These limits are 3.18 times the method detection limit as defined in CFR 40 Part 136, Appendix B. Data reported between the reporting and method detection limits are J flagged as estimated. Maine Environmental Laboratory is certified by Maine, Massachusetts, New Hampshire and NELAP (cert.#2031). A list of certified parameters is available on request. The results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This report shall not be reproduced, except in full, without the written consent of the laboratory.

The complete report consists of the following sections:

Maine Environmental Laboratory report

Chain of custody form

References

EPA - EPA600/4-79-020, Methods for Chemical Analysis of Water and Wastes, USEPA, Cincinnati, Ohio, March 1983.

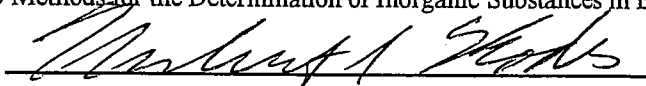
SW8 - SW846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA, third edition, 1986.

STM - Standard Methods for the Examination of Water and Wastewater, 18th edition, APHA, AWWA, WPCF, 1992.

CLP - USEPA CLP Statement of Work for Inorganics, ILMO3.0.

EPA1 - EPA/600/R-93/100 Methods for the Determination of Inorganic Substances in Environmental Samples, Aug. 1993.

Authorized signature



Herbert S. Kodis, laboratory director

Maine Environmental Laboratory

Report of Analyses

One Main Street Yarmouth, Maine 04096-1107

Tel (207) 846-6569 Fax (207) 846-9066 e-mail: melab@ime.net

Steve Knollmeyer

Page 2 of 2

Analytics Environmental Lab, LLC

195 Commerce Way, Suite E

October 06, 2005

Portsmouth, NH 03801

Report No: AEL3063-05

Sampler: No Data

Date received: 09/30/05

Sampling date & time: 09/29/05-1140

Project ID: Hampton Tolls

Sample matrix: Wastewater

Laboratory ID: AEL306305-01

Sample ID: Pre-GAC (54988-1)

Parameter	Results	units	Date-Time Analyzed	Method Detection Limit	Reporting Detection Limit	Method	Reference
Antimony, total	ND	mg/L	10/03/05	0.002	0.005	3030F/3113B	STM
Arsenic, total	0.040	mg/L	09/30/05	0.001	0.004	3113B	STM
Cadmium, total	0.0009	mg/L	10/05/05	0.0002	0.0006	3030E/3113B	STM
Chromium, total	0.002 J	mg/L	10/03/05	0.002	0.005	3030E/3113B	STM
Chromium VI, diss.	ND	mg/L	09/30/05-1100	0.02	0.06	3111C	STM
Copper, total	0.03 J	mg/L	10/03/05	0.01	0.04	3030F/3111B	STM
Iron, total	33	mg/L	10/03/05	1	3	3030F/3111B	STM
Lead, total	0.008	mg/L	10/04/05	0.001	0.003	3030E/3113B	STM
Mercury, total	ND	mg/L	10/06/05	0.0002	0.0005	3112B	STM
Nickel, total	0.008	mg/L	10/04/05	0.002	0.005	3030E/3113B	STM
Selenium, total	0.003 J	mg/L	10/05/05	0.001	0.004	3113B	STM
Silver, total	ND	mg/L	10/03/05	0.0003	0.0010	3030E/3113B	STM
Zinc, total	0.24	mg/L	10/04/05	0.01	0.04	3030F/3111B	STM
Cyanide	0.003 J	mg/L	10/04/05	0.002	0.005	4500CN-B/C/E	STM
Phenols	0.02 J	mg/L	10/06/05	0.01	0.04	420.1	EPA
TSS	51	mg/L	10/03/05	4		160.2	EPA

ND = not detected J = estimated B = detected in blank S = RDL increased due to sample matrix

MEL

AEL 3063.05

<div style="display: flex; align-items: center;"> <div style="text-align: center;"> <div style="font-size: 8px; margin: 0;">environmental laboratory LLC</div> </div> </div>			195 Commerce Way Suite E Portsmouth, NH 03801 Phone (603) 436-5111 Fax (603) 430-2151			For Analytics Use Only Rev. 1, 10/1/02 Samples were: 1) Shipped or hand-delivered 2) Temp blank °C <u>27</u> 3) Received in good condition Y or N 4) pH checked by: _____ 5) Labels checked by: _____			Received By:	Received By:	Received By:				
			Project#: _____ Proj. Name: <u>Hampton Tolls</u> Company: ANALYTICS Environmental Laboratory LLC Contact: Stephen Knollmeyer Address: 195 COMMERCE WAY PORTSMOUTH, NH 03801 Phone: 603-436-5111 PO# _____ Quote # 011805-40 Sampler (Signature): <u>ES</u>									Matrix Key: WW=Wastewater SW=Surfacewater GW=Groundwater DW=Drinkingwater S=Soil/Sludge O=Oil F=Extrant X=Other			Container Key P=plastic G=glass
Station Identification			Sample Date	Sample Time	Analysis	Unpres 4°C HNO ₃ H ₂ SO ₄ HCl Methanol Other*	Matrix	Container number/type	pH	Analytics Sample #	Time:	Time:	Time:		
<u>Pre-QAC</u> ↓			<u>92905</u> ↓	<u>1125</u> <u>1133</u> <u>1140</u> <u>1157</u>	<u>Total Phenols</u> <u>Metals *</u> <u>ES, Hexavalent Cr</u> <u>CN-</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<u>WW</u> ↓	<u>1</u> <u>1</u> <u>1</u> <u>1</u>	<u>G</u> <u>P</u> <u>P</u> <u>P</u>	<u>54988-1</u>				Date:	Date:
FAX RESULTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Fax #: 603-430-2151 Turnaround Request _____			Comments / Instructions: <div style="text-align: center; font-size: 1.2em;">* See Faxed COC.</div>										Relinquished By Sampler:		
Standard <input type="checkbox"/> Priority <input checked="" type="checkbox"/> Due Date _____ Due Date <u>10.10.05</u>														Relinquished By Sampler:	Relinquished By:

Page 1 of 1

11/13

MEL

3083

analytics

environmental
laboratory LLC195 Commerce Way Suite E
Portsmouth, NH 03801
Phone (603) 436-5111
Fax (603) 430-2151

For Analytics Use Only Rev. 1, 10/1/02

Samples were:

- 1) Shipped or hand-delivered
- 2) Temp blank °C _____
- 3) Received in good condition Y or N
- 4) pH checked by: _____
- 5) Labels checked by: _____

Container Key

P=plastic G=glass

Matrix Key:

WW=Wastewater
SW=Surfacewater
GW=Groundwater
DW=Drinkingwater
S=Soil/Sludge
O=Oil
F=Extract
X=Other

Preservation

Project#: Proj. Name: Hampton Tolls
Company: ANALYTICS Environmental Laboratory LLC
Contact: Stephen Knollmeyer
Address: 195 COMMERCE WAY
PORTSMOUTH, NH 03801
Phone: 603-436-5111 PO# Quote # 011805-40
Sampler (Signature): ES

Station Identification	Sample Date	Sample Time	Analysis	Unpres	AsC	HNO3	H2SO4	HCl	Methanol	Other	Matrix	Container number/type	pH	Analytics Sample #
197-04C	92905	1125	Total Phenols		✓						WW	1 G		54988-1
20	↓	1133	Metals *		✓						↓	1 P		
21	↓	1140	ES Hexavalent Cr		✓						↓	1 P		
AD	↓	1157	CN-		✓						↓	1 P		
Tammay - Edits for COC Ann haso M														

FAX RESULTS? ☒ YES ☐ NO

Fax #: 603-430-2151

Turnaround Request

Standard ☐Priority ☒

Due Date

Due Date

10.6.05

Comments / Instructions:

*metals (Sb, Cd, Cr (total), Cu, Pb, Hg, Ni, As, Se, As, Zn, Fe)
NPDES methods

Page 1 of 1

Received By:

Time:

Date:

Relinquished By Sampler:

Received By:

Time:

Date:

Relinquished By:

Received By:

Time:

Date:

Relinquished By:

1-8/3 P.001/001 P-4/4

12/13

FROM-ANALYTICS

13:30

09-03-06

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

Report Number: 54974

Revision: Rev. 0

Re: Hampton Tolls

Enclosed are the results of the analyses on your sample(s). Samples were received on 27 September 2005 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
54974-1	09/27/05	Influent	EPA 8260 Volatile Organics	
54974-2	09/27/05	Midfluent	EPA 8260 Volatile Organics	
54974-3	09/27/05	Effluent	EPA 8260 Volatile Organics	
54974-4	09/27/05	Trip Blank	EPA 8260 Volatile Organics	

Sample Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, North Carolina, Virginia, Pennsylvania and is validated by the U.S. Army Corps of Engineers (MRD) and U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature


Stephen L. Knollmeyer Lab. Director

Date

9/30/2005

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consent of Analytics Environmental Laboratory, LLC.**

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

September 30, 2005

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Hampton Tolls
Project Number:
Field Sample ID: Influent

Lab Sample ID: 54974-1
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/27/05
Lab Receipt Date: 09/27/05
Analysis Date: 09/28/05

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	2	U	1,3-Dichloropropane	2	U
Bromobenzene	2	U	cis-1,3-Dichloropropene	2	U
Bromochloromethane	2	U	trans-1,3-Dichloropropene	2	U
Bromodichloromethane	2	U	2,2-Dichloropropane	2	U
Bromoform	2	U	1,1-Dichloropropene	2	U
Bromomethane	2	U	Ethylbenzene	2	U
n-butylbenzene	2	U	Hexachlorobutadiene	2	U
sec-butylbenzene	2	3	Isopropylbenzene	2	1 J
tert-butylbenzene	2	U	p-isopropyltoluene	2	U
Carbon Tetrachloride	2	U	Methylene Chloride	5	U
Chlorobenzene	2	U	Methyl-tert-butyl ether (MTBE)	2	3
Chloroethane	2	U	Naphthalene	2	U
Chloroform	2	U	n-Propylbenzene	2	U
Chloromethane	2	U	Styrene	2	U
2-Chlorotoluene	2	U	1,1,1,2-Tetrachloroethane	2	U
4-Chlorotoluene	2	U	1,1,2,2-Tetrachloroethane	2	U
Dibromochloromethane	2	U	Tetrachloroethene	2	U
1,2-Dibromo-3-chloropropane	2	U	Toluene	2	U
1,2-Dibromoethane	2	U	1,2,3-Trichlorobenzene	2	U
Dibromomethane	2	U	1,2,4-Trichlorobenzene	2	U
1,2-Dichlorobenzene	2	U	1,1,1-Trichloroethane	2	U
1,3-Dichlorobenzene	2	U	1,1,2-Trichloroethane	2	U
1,4-Dichlorobenzene	2	U	Trichloroethene	2	U
Dichlorodifluoromethane	2	U	Trichlorofluoromethane	2	U
1,1-Dichloroethane	2	U	1,2,3-Trichloropropane	2	U
1,2-Dichloroethane	2	U	1,2,4-Trimethylbenzene	2	U
1,1-Dichloroethene	2	U	1,3,5-Trimethylbenzene	2	U
cis-1,2-Dichloroethene	2	U	Vinyl Chloride	2	U
trans-1,2-Dichloroethene	2	U	o-Xylene	2	U
1,2-Dichloropropane	2	U	m,p-Xylene	2	U
Acetone	10	U	Diethyl ether	2	U
Carbon Disulfide	2	U	2-Hexanone	10	U
Tetrahydrofuran	5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	2	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	2	U
t-Amyl methyl ether (TAME)	2	U	1,4-Dioxane	30	U
Surrogate Standard Recovery					
Dibromofluoromethane	101 %	d4-1,2-Dichloroethane	103 %	d8-Toluene	104 %
				Bromofluorobenzene	105 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

September 30, 2005

SAMPLE DATA

CLIENT SAMPLE ID

Project Name: Hampton Tolls

Project Number:

Field Sample ID: Midfluent

Lab Sample ID: 54974-2
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/27/05
Lab Receipt Date: 09/27/05
Analysis Date: 09/28/05

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	2	U	1,3-Dichloropropane	2	U
Bromobenzene	2	U	cis-1,3-Dichloropropene	2	U
Bromochloromethane	2	U	trans-1,3-Dichloropropene	2	U
Bromodichloromethane	2	U	2,2-Dichloropropane	2	U
Bromoform	2	U	1,1-Dichloropropene	2	U
Bromomethane	2	U	Ethylbenzene	2	U
n-butylbenzene	2	U	Hexachlorobutadiene	2	U
sec-butylbenzene	2	U	Isopropylbenzene	2	U
tert-butylbenzene	2	U	p-isopropyltoluene	2	U
Carbon Tetrachloride	2	U	Methylene Chloride	5	U
Chlorobenzene	2	U	Methyl-tert-butyl ether (MTBE)	2	U
Chloroethane	2	U	Naphthalene	2	U
Chloroform	2	U	n-Propylbenzene	2	U
Chloromethane	2	U	Styrene	2	U
2-Chlorotoluene	2	U	1,1,1,2-Tetrachloroethane	2	U
4-Chlorotoluene	2	U	1,1,2,2-Tetrachloroethane	2	U
Dibromochloromethane	2	U	Tetrachloroethene	2	U
1,2-Dibromo-3-chloropropane	2	U	Toluene	2	U
1,2-Dibromoethane	2	U	1,2,3-Trichlorobenzene	2	U
Dibromomethane	2	U	1,2,4-Trichlorobenzene	2	U
1,2-Dichlorobenzene	2	U	1,1,1-Trichloroethane	2	U
1,3-Dichlorobenzene	2	U	1,1,2-Trichloroethane	2	U
1,4-Dichlorobenzene	2	U	Trichloroethene	2	U
Dichlorodifluoromethane	2	U	Trichlorofluoromethane	2	U
1,1-Dichloroethane	2	U	1,2,3-Trichloropropane	2	U
1,2-Dichloroethane	2	U	1,2,4-Trimethylbenzene	2	U
1,1-Dichloroethene	2	U	1,3,5-Trimethylbenzene	2	U
cis-1,2-Dichloroethene	2	U	Vinyl Chloride	2	U
trans-1,2-Dichloroethene	2	U	o-Xylene	2	U
1,2-Dichloropropane	2	U	m,p-Xylene	2	U
Acetone	10	U	Diethyl ether	2	U
Carbon Disulfide	2	U	2-Hexanone	10	U
Tetrahydrofuran	5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	2	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	2	U
t-Amyl methyl ether (TAME)	2	U	1,4-Dioxane	30	U
Surrogate Standard Recovery					
Dibromofluoromethane	96 %	d4-1,2-Dichloroethane	98 %	d8-Toluene	107 %
				Bromofluorobenzene	105 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

Melanie Kuli

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

September 30, 2005

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Hampton Tolls
Project Number:
Field Sample ID: Effluent

Lab Sample ID: 54974-3
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/27/05
Lab Receipt Date: 09/27/05
Analysis Date: 09/28/05

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	2	U	1,3-Dichloropropane	2	U
Bromobenzene	2	U	cis-1,3-Dichloropropene	2	U
Bromochloromethane	2	U	trans-1,3-Dichloropropene	2	U
Bromodichloromethane	2	U	2,2-Dichloropropane	2	U
Bromoform	2	U	1,1-Dichloropropene	2	U
Bromomethane	2	U	Ethylbenzene	2	U
n-butylbenzene	2	U	Hexachlorobutadiene	2	U
sec-butylbenzene	2	U	Isopropylbenzene	2	U
tert-butylbenzene	2	U	p-isopropyltoluene	2	U
Carbon Tetrachloride	2	U	Methylene Chloride	5	U
Chlorobenzene	2	U	Methyl-tert-butyl ether (MTBE)	2	U
Chloroethane	2	U	Naphthalene	2	U
Chloroform	2	U	n-Propylbenzene	2	U
Chloromethane	2	U	Styrene	2	U
2-Chlorotoluene	2	U	1,1,1,2-Tetrachloroethane	2	U
4-Chlorotoluene	2	U	1,1,2,2-Tetrachloroethane	2	U
Dibromochloromethane	2	U	Tetrachloroethene	2	U
1,2-Dibromo-3-chloropropane	2	U	Toluene	2	U
1,2-Dibromoethane	2	U	1,2,3-Trichlorobenzene	2	U
Dibromomethane	2	U	1,2,4-Trichlorobenzene	2	U
1,2-Dichlorobenzene	2	U	1,1,1-Trichloroethane	2	U
1,3-Dichlorobenzene	2	U	1,1,2-Trichloroethane	2	U
1,4-Dichlorobenzene	2	U	Trichloroethene	2	U
Dichlorodifluoromethane	2	U	Trichlorofluoromethane	2	U
1,1-Dichloroethane	2	U	1,2,3-Trichloropropane	2	U
1,2-Dichloroethane	2	U	1,2,4-Trimethylbenzene	2	U
1,1-Dichloroethene	2	U	1,3,5-Trimethylbenzene	2	U
cis-1,2-Dichloroethene	2	U	Vinyl Chloride	2	U
trans-1,2-Dichloroethene	2	U	o-Xylene	2	U
1,2-Dichloropropane	2	U	m,p-Xylene	2	U
Acetone	10	U	Diethyl ether	2	U
Carbon Disulfide	2	U	2-Hexanone	10	U
Tetrahydrofuran	5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	2	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	2	U
t-Amyl methyl ether (TAME)	2	U	1,4-Dioxane	30	U
Surrogate Standard Recovery					
Dibromofluoromethane	100 %	d4-1,2-Dichloroethane	101 %	d8-Toluene	106 %
				Bromofluorobenzene	105 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

Melina Full

Mr. Craig Gendron
Jacques Whitford Co.
P.O. Box 4696
Portsmouth NH 03801

September 30, 2005

SAMPLE DATA

CLIENT SAMPLE ID
Project Name: Hampton Tolls
Project Number:
Field Sample ID: Trip Blank

Lab Sample ID: 54974-4
Matrix: Aqueous
Percent Solid: N/A
Dilution Factor: 1
Collection Date: 09/27/05
Lab Receipt Date: 09/27/05
Analysis Date: 09/28/05

ANALYTICAL RESULTS VOLATILE ORGANICS					
COMPOUND	Quantitation Limit µg/L	Result µg/L	COMPOUND	Quantitation Limit µg/L	Result µg/L
Benzene	2	U	1,3-Dichloropropane	2	U
Bromobenzene	2	U	cis-1,3-Dichloropropene	2	U
Bromochloromethane	2	U	trans-1,3-Dichloropropene	2	U
Bromodichloromethane	2	U	2,2-Dichloropropane	2	U
Bromoform	2	U	1,1-Dichloropropene	2	U
Bromomethane	2	U	Ethylbenzene	2	U
n-butylbenzene	2	U	Hexachlorobutadiene	2	U
sec-butylbenzene	2	U	Isopropylbenzene	2	U
tert-butylbenzene	2	U	p-isopropyltoluene	2	U
Carbon Tetrachloride	2	U	Methylene Chloride	5	U
Chlorobenzene	2	U	Methyl-tert-butyl ether (MTBE)	2	U
Chloroethane	2	U	Naphthalene	2	U
Chloroform	2	U	n-Propylbenzene	2	U
Chloromethane	2	U	Styrene	2	U
2-Chlorotoluene	2	U	1,1,1,2-Tetrachloroethane	2	U
4-Chlorotoluene	2	U	1,1,2,2-Tetrachloroethane	2	U
Dibromochloromethane	2	U	Tetrachloroethene	2	U
1,2-Dibromo-3-chloropropane	2	U	Toluene	2	U
1,2-Dibromoethane	2	U	1,2,3-Trichlorobenzene	2	U
Dibromomethane	2	U	1,2,4-Trichlorobenzene	2	U
1,2-Dichlorobenzene	2	U	1,1,1-Trichloroethane	2	U
1,3-Dichlorobenzene	2	U	1,1,2-Trichloroethane	2	U
1,4-Dichlorobenzene	2	U	Trichloroethene	2	U
Dichlorodifluoromethane	2	U	Trichlorofluoromethane	2	U
1,1-Dichloroethane	2	U	1,2,3-Trichloropropane	2	U
1,2-Dichloroethane	2	U	1,2,4-Trimethylbenzene	2	U
1,1-Dichloroethene	2	U	1,3,5-Trimethylbenzene	2	U
cis-1,2-Dichloroethene	2	U	Vinyl Chloride	2	U
trans-1,2-Dichloroethene	2	U	o-Xylene	2	U
1,2-Dichloropropane	2	U	m,p-Xylene	2	U
Acetone	10	U	Diethyl ether	2	U
Carbon Disulfide	2	U	2-Hexanone	10	U
Tetrahydrofuran	5	U	Methyl isobutyl ketone	10	U
Methyl ethyl ketone	10	U	Di-isopropyl ether (DIPE)	2	U
t-Butyl alcohol (TBA)	20	U	Ethyl t-butyl ether (ETBE)	2	U
t-Amyl methyl ether (TAME)	2	U	1,4-Dioxane	30	U
Surrogate Standard Recovery					
Dibromofluoromethane	97 %	d4-1,2-Dichloroethane	97 %	d8-Toluene	107 %
				Bromofluorobenzene	104 %
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank					

METHODOLOGY: Sample analysis was conducted according to: Test Methods for Evaluating Solid Waste, SW-846 Method 8260B.

COMMENTS:

M. Lemaire

NPDES EXCLUSION/TSWDP STATUS DETERMINATION



**Vasiliki Partinoudi - Confirmation of NPDES Permit Exclusion Letter #NH-03I-013
for Hampton Toll Plaza**

From: <o'Brien.mike@epamail.epa.gov>
To: <VPartino@jacqueswhitford.com>
Date: 10/15/2004 5:21 PM
Subject: Confirmation of NPDES Permit Exclusion Letter #NH-03I-013 for Hampton Toll Plaza
CC: <SKarnauk@des.st.nh.us>

Dear Ms. Partinoudi:

This will confirm that NPDES Permit Exclusion Letter #NH-03I-013 for the NH DOT Hampton Toll Plaza at Hampton, NH, issued by U.S. EPA on August 21, 2003 is still valid. There is no explicit expiration date in this letter, although there is an implied expiration date in your application of 240 days after the estimated discharge start, August 13, 2003. But these letters do not have expiration dates and may continue as long as the discharge could occur. Discharges may start and stop, but when they stop permanently (marked by removal of pumping and treatment equipment or by a declaration that the particular project discharges will not resume), the applicable, regulating letter is then void and no longer effective.

Vasiliki Partinoudi - RE: Hampton Toll Plaza

From: "Karnauk, Slava" <skarnauk@des.state.nh.us>
To: "Vasiliki Partinoudi" <VPartino@jacqueswhitford.com>
Date: 3/24/2004 10:51 AM
Subject: RE: Hampton Toll Plaza
CC: "Andrews, Jeff" <jandrews@des.state.nh.us>

Hello, Vaso

TSWP-198904009-H-02 shall be extended until NPDES permit is issued. Please confirm NPDES permit requirements with the EPA Office of Ecosystem Protection and notify DES on or before November 25, 2004.

Slava Karnauk
NHDES
271-7374

-----Original Message-----

From: Vasiliki Partinoudi [<mailto:VPartino@jacqueswhitford.com>]
Sent: Wednesday, March 24, 2004 10:04 AM
To: Karnauk, Slava
Subject: Hampton Toll Plaza

Hello

As per our telephone conversation:

The Hampton Toll Plaza was issued with a Temporary Surface Water Discharge Permit (198904009) on August 26, 2003. The Permit expires on April 25, 2004. The site has also been issued a NPDES Permit Exclusion Letter by the U.S.EPA (# NH 03I-013).

I called Mr. O'Brien at the USEPA and he informed me that the exclusion is still valid and that we do not need to apply for a NPDES permit right now. He says that we are up to date with the site permitting.

Will you be re-issuing a new Temporary Surface Water Discharge Permit for the site once it expires? Is there anything that we need to do before the permit expires?

Thank you

Vaso

This transmission contains privileged and confidential information intended for the addressee(s) listed above. If you have received this transmission in error, please call (603)431-4899. Any unauthorized use is prohibited.

DISCHARGE MONITORING DATA FOR THE LAST YEAR



Table 1
Treatment System Analytical Data
Influent, Midfluent and Effluent Sampling
EPA Method 8260B with NHDES Full List of Analytes
Hampton Toll Plaza, Hampton, NH

Sample Date and Sample Location																			
Compound (ug/L)	AGQS standards	5/31/2005			6/30/2005			7/27/2005			8/4/2005 ¹			8/5/2005 ¹			9/2/2005		
		Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent
Vinyl chloride	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
cis-1,2-Dichloroethene	70	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,1-Trichloroethane	200	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Trichloroethene	5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Isopropylbenzene	800	1 J	<2	<2	2	<2	<2	2	<2	<2	2	<2	<2	2	<2	<2	1 J	<2	<2
n-Butylbenzene	260	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
sec-Butylbenzene	260	2	<2	<2	4	<2	<2	4	<2	<2	3	<2	<2	4	<2	<2	3	<2	<2
Methyl-tert-butyl ether	13	<2	<2	<2	2	<2	<2	3	2.0	<2	3	<2	<2	3	<2	<2	3	<2	<2
Tetrahydrofuran		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	6	<5	<5	8

NOTES:

AGQS = Ambient Groundwater Quality Standards (N. H. Administrative Rules ENV-WS 1500) .

All values in this table are in ug/l (micrograms per liter).

ug/L = micrograms per liter, equivalent to parts per billion (ppb).

Bold concentrations exceed applicable AGQS.

J = estimated

1 = Primary GAC unit changed out on 8/3/05 and samples collected at 24/48 hour interval per TSWP # 198904009-H-02



**Engineering,
Scientific,
Planning and
Management
Consultants**

P.O. Box 4696
27 Congress Street
Portsmouth, NH 03801

Bus 603 431 4899
Fax 603 431 5982

www.jacqueswhitford.com

Project No: NHP04083.***

Via Certified Mail – Return Receipt Requested

June 9, 2005

Mr. Slava Karnauk
Temporary Surface Water Permit Coordinator
New Hampshire DES
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

**RE: Summary Report : Period of December 31, 2004 to April 28, 2005
Temporary Surface Water Discharge Activities
NHDOT Hampton Toll Plaza, Hampton, New Hampshire
Permit No.: TSWP-198904009-H-02**

Dear Mr. Karnauk:

This is a summary of permitted temporary surface water discharge activities completed at the NHDOT Hampton Toll Plaza located in Hampton, New Hampshire (the "Site") between December 31, 2004 and April 28, 2005 (the monitoring period). The activities described herein were completed in accordance with a Temporary Surface Water Discharge Permit (TSWP) issued by the New Hampshire Department of Environmental Services on August 26, 2003 (Permit No. TSWP-198904009-H-02). These discharges were the result of the on-site treatment of VOC-impacted groundwater collected from a sump used to drain the Toll Plaza infrastructure.

Treatment System Description

The treatment system (the "System") was designed, constructed, and maintained by Jacques Whitford Company, Inc. (Jacques Whitford). System monitoring and sampling were also performed by Jacques Whitford. The System utilized Granular Activated Carbon (GAC)-filtration and was described in the Sump Treatment System Design Report dated July 12, 2000. Minor modifications were made to the System during installation. These changes were described in the Treatment System Installation and Operation Report dated July 30, 2002.

Treatment System Water Quality

The NHDES required that the treatment system discharge not contain contaminant concentrations in excess of the Surface Water Quality Standards and Ambient Groundwater Quality Standards (NH Administrative Rules Env-Ws 1700 and NH Administrative Rules Env-Ws 1500, respectively). To this end, Jacques Whitford performed treatment system effluent sampling per the

**Jacques
Whitford**
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Solutions**

requirements of the TSWP. Weekly or biweekly system Operations and Maintenance (O&M) was performed as well. During each sampling event, samples were collected from the treatment system influent (pre-GAC), the primary vessel effluent (mid-GAC), and the secondary vessel effluent (post-GAC) and analyzed for Volatile Organic Compounds (VOCs) via EPA Method 8260B.

Samples were collected on January 30, 2005, February 24, 2005, March 25, 2005, and April 28, 2005 during this monitoring period. Isopropylbenzene, n-Butylbenzene and sec-Butylbenzene were the most common compounds detected in the influent samples (pre-GAC) during this monitoring period, but well below the AGQS standard for these compounds. Laboratory analytical results for the mid-GAC and secondary vessel effluent (post-GAC) samples indicated that there were no AGQS standard exceedances. Copies of laboratory analytical reports for the System, and Sampling and Operation and Maintenance Checklists are attached. Analytical results for samples collected during this monitoring period are summarized in Table 1. Flow volumes totaled about 88,940 gallons over this monitoring period for an average of approximately 22,235 gallons per month.

Unscheduled Maintenance Performed

During the period of December 31, 2004 to April 28, 2005, the system ran within normal parameters and no breakthrough was detected from the primary or secondary GAC vessels. Only regularly scheduled maintenance (i.e., periodic change-out of bag filters) was performed during this monitoring period.

Conclusions

During the period of December 31, 2004 to April 28, 2005, the groundwater treatment System at the Site treated approximately 88,940 gallons of groundwater. Without exception, analysis of the mid-GAC and post-GAC samples collected during this monitoring period did not indicate breakthrough above Standards from either the primary or secondary GAC vessels. All effluent (i.e., post-GAC) sampling results were below applicable Standards.

Mr. Slava Karnauk
June 9, 2005
Page 3 of 3

We trust that this information is sufficient for your needs. If you have questions or comments, or require any additional information, please contact one of the undersigned at (603) 431-4899.

Sincerely,

JACQUES WHITFORD

Craig R. Gendron, P.G., P.E.
VP/Principal Engineer – US

Chyna Levesque
Staff Scientist

CRG:cgl

attachments

cc: Jonathan Hanson, NHDOT w/attachments via Regular US Mail
Dale O'Connell, NHDOT w/attachments via Regular US Mail

Table 1
Treatment System Analytical Data
Influent, Midfluent and Effluent Sampling
EPA Method 8260B with NHDES Full List of Analytes
Hampton Toll Plaza, Hampton, NH

Sample Date and Sample Location													
		1/30/2005			2/24/2005			3/25/2005			4/28/2005		
Compound (ug/L)	AGQS standards	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent	Influent	Midfluent	Effluent
Vinyl chloride	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichlorethene	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	800	2.6	<1.0	<1.0	2.7	<1.0	<1.0	2.9	<1.0	<1.0	2.6	<1.0	<1.0
n-Butylbenzene	260	1.1	<1.0	<1.0	1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	260	4.3	<1.0	<1.0	4.3	<1.0	<1.0	5.3	1.0	<1.0	3.9	<1.0	<1.0
Methyl-tert-butyl ether	13	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

AGQS = Ambient Groundwater Quality Standards (N. H. Administrative Rules ENV-WS 1500) .

All values in this table are in ug/l (micrograms per liter).

ug/L = micrograms per liter, equivalent to parts per billion (ppb).

Bold concentrations exceed applicable AGQS.



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Via Certified Mail – Return Receipt Requested

January 14, 2005

Mr. Slava Karnauk
Temporary Surface Water Permit Coordinator
New Hampshire DES
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

**RE: Summary Report : Period of August 28, 2004 to December 30, 2004
Temporary Surface Water Discharge Activities
NHDOT Hampton Toll Plaza, Hampton, New Hampshire
Permit No.: TSWP-198904009-H-02
Jacques Whitford Reference: HAMPTON TOLL PLAZA/NHP04083.1**

Dear Mr. Karnauk:

This is a summary of permitted temporary surface water discharge activities completed at the NHDOT Hampton Toll Plaza located in Hampton, New Hampshire (the "Site") between August 28, 2004 and December 30, 2004 (the monitoring period). The activities described herein were completed in accordance with a Temporary Surface Water Discharge Permit (TSWP) issued by the New Hampshire Department of Environmental Services on August 26, 2003 (Permit No. TSWP-198904009-H-02). These discharges were the result of the on-site treatment of VOC-impacted groundwater collected from a sump used to drain the Toll Plaza infrastructure.

Treatment System Description

The treatment system (the "System") was designed, constructed, and maintained by Jacques Whitford Company, Inc. (Jacques Whitford). System monitoring and sampling were also performed by Jacques Whitford. The System utilized Granular Activated Carbon (GAC)-filtration and was described in the Sump Treatment System Design Report dated July 12, 2000. Minor modifications were made to the System during installation. These changes were described in the Treatment System Installation and Operation Report dated July 30, 2002.

Treatment System Water Quality

The NHDES required that the treatment system discharge not contain contaminant concentrations in excess of the Surface Water Quality Standards and Ambient Groundwater Quality Standards (NH Administrative Rules Env-Ws 1700 and NH Administrative Rules Env-Ws 1500, respectively). To this end, Jacques Whitford performed treatment system effluent sampling per the requirements of the TSWP. Weekly or biweekly system Operations and

**Jacques
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Maintenance (O&M) was performed as well. During each sampling event, samples were collected from the treatment system influent (pre-GAC), the primary vessel effluent (mid-GAC), and the secondary vessel effluent (post-GAC) and analyzed for Volatile Organic Compounds (VOCs) via EPA Method 8260B.

Samples were collected on September 30, October 15, October 16, November 29, December 9, December 10, and December 30, 2004 during this monitoring period. Midfluent (mid-GAC) results showed several detections of methyl-tert-butyl ether (MTBE), but none were above 2 ug/L, a common laboratory detection limit for this compound. Laboratory analytical results for the effluent (post-GAC) samples analyzed via EPA Method 8260B indicated that there were no Standard exceedances. Copies of laboratory analytical reports for the System, and Sampling and Operation and Maintenance Checklists are attached. Analytical results for samples collected during this monitoring period are summarized in Table 1. Flow volumes averaged approximately 11,195 gallons per month for a total of about 44,780 gallons over this monitoring period.

Unscheduled Maintenance Performed

During our scheduled sampling on September 30, MTBE was detected in the mid-GAC sample (2.0 ug/L). As a result, the primary GAC vessel was replaced. Per the TSWP requirements, samples were collected both on the day of, and 48 hours after, the GAC vessel was replaced.

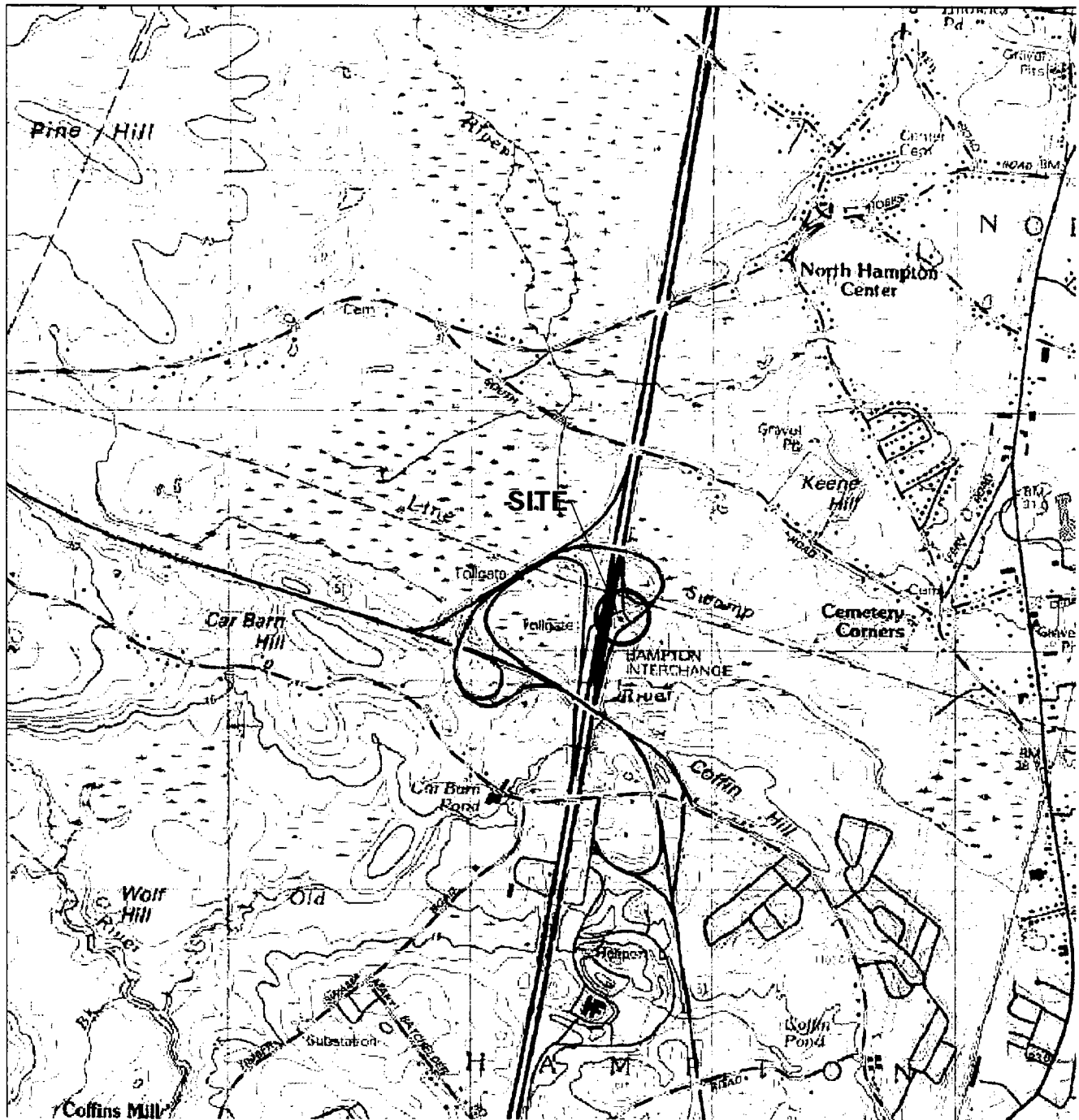
During our scheduled sampling on November 29, MTBE was detected in the mid-GAC sample (1.1 ug/L). As a result, the primary GAC vessel was replaced. Per the TSWP requirements, samples were collected both on the day of, and 48 hours after, the GAC vessel was replaced. Operation and Maintenance checklists completed during this monitoring period are attached.

Conclusions

During the period of August 28 to December 30, 2004, the groundwater treatment System at the Site treated approximately 44,780 gallons of groundwater. Without exception, analysis of the mid-GAC and post-GAC samples collected during this monitoring period did not indicate breakthrough above Standards from either the primary or secondary GAC vessels. All effluent (i.e., post-GAC) sampling results were below applicable Standards.

FIGURES





MAP SOURCE:

UNITED STATES GEOLOGICAL SURVEY
TOPOGRAPHIC MAPS

EXETER, NH-MA
1985

2080 0 2080

Scale in feet

Jacques Whitford Company, Inc.



JACQUES WHITFORD LOCATION:
PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED: 9-13-05	DESIGNED BY: DBH	DRAWN BY: ADK	CHECKED BY: CRG	REVIEWED BY: CRG
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

PROJECT NAME/FILE NAME:
HAMPTON TOLLS

PROJECT NUMBER/PHASE:
NHP04083

SCALE:
1:25000

DRAWING TITLE:

SITE LOCATION MAP

HAMPTON TOLL PLAZA
INTERSTATE 95
HAMPTON, NEW HAMPSHIRE

PREPARED FOR:
NEW HAMPSHIRE D.O.T.

FIGURE NO.

1

CEILING

SHELF

3'-6"

NEW 200-lb
GRANULATED
ACTIVATED
CARBON UNITS
(GAC)

NEW CHECK
VALVE

EXISTING
SUMP

NEW SUMP PUMP

SHELF

NEW
PRESSURE SWITCH (NO)
CLOSE AT 9 PSI

NEW SUMP PUMP

CONTROL SCHEMATIC

NOT TO SCALE

Material	Max. Power	Control Comments
Phosphor bronze tube, Polypropylene case material	Rating	0-100 psi range
HDPE	10 Amp draw, 115 V	N.O. switch, 125 psi pressure limit.
SIOW-A water resistant CPE neoprene cord	240 V, 5 Amps	N.O. switch.
304 Stainless Steel	None	Accommodates up to 6 floats. Can be mounted on concrete, steel, or fiberglass.
NEMA 4X Fiberglass Enclosure	208/230 V, 3 phase Max pump running amps = 6.3 to 10.	
Bronze	None	Max GPM = 50 Max Operating pressure = 11.5 psi

Size	Amount	Material	Max Operating Pressure	Comments
1"	37'	Schedule 40 NSF PVC	450 psi	
1.5"	1	PVC	150 psi	
1"	2	Schedule 80 PVC	150 psi inlet 100 psi outlet	Viton construction
1"	4	Schedule 80 PVC	150 psi inlet 100 psi outlet	Socket/Threaded Viton Seals
3"	1	PVC	150 psi	

Max Amps	Power Supply		Materials	Max. GPM	Max Operating Pressure (psi)	Comments
	V	PH				
9.2	208/230	3	Cast iron	84 @ TDH = 10 ft	52 psi @ 5 gpm, 53 psi shut-off pressure	
			Mild steel		10	
			Carbon Steel	100	100	
			Polyester	160	35	Changeout of filter element required at 35 psi.

- HHLL — HIGH, HIGH LIQUID LEVEL SWITCH
- HLL — HIGH LIQUID LEVEL SWITCH
- LLL — LOW LIQUID LEVEL SWITCH
- — — — — POWER CIRCUIT
- - - - - CONTROL CIRCUIT

Jacques Whitford Company, Inc.

DRAWING TITLE:

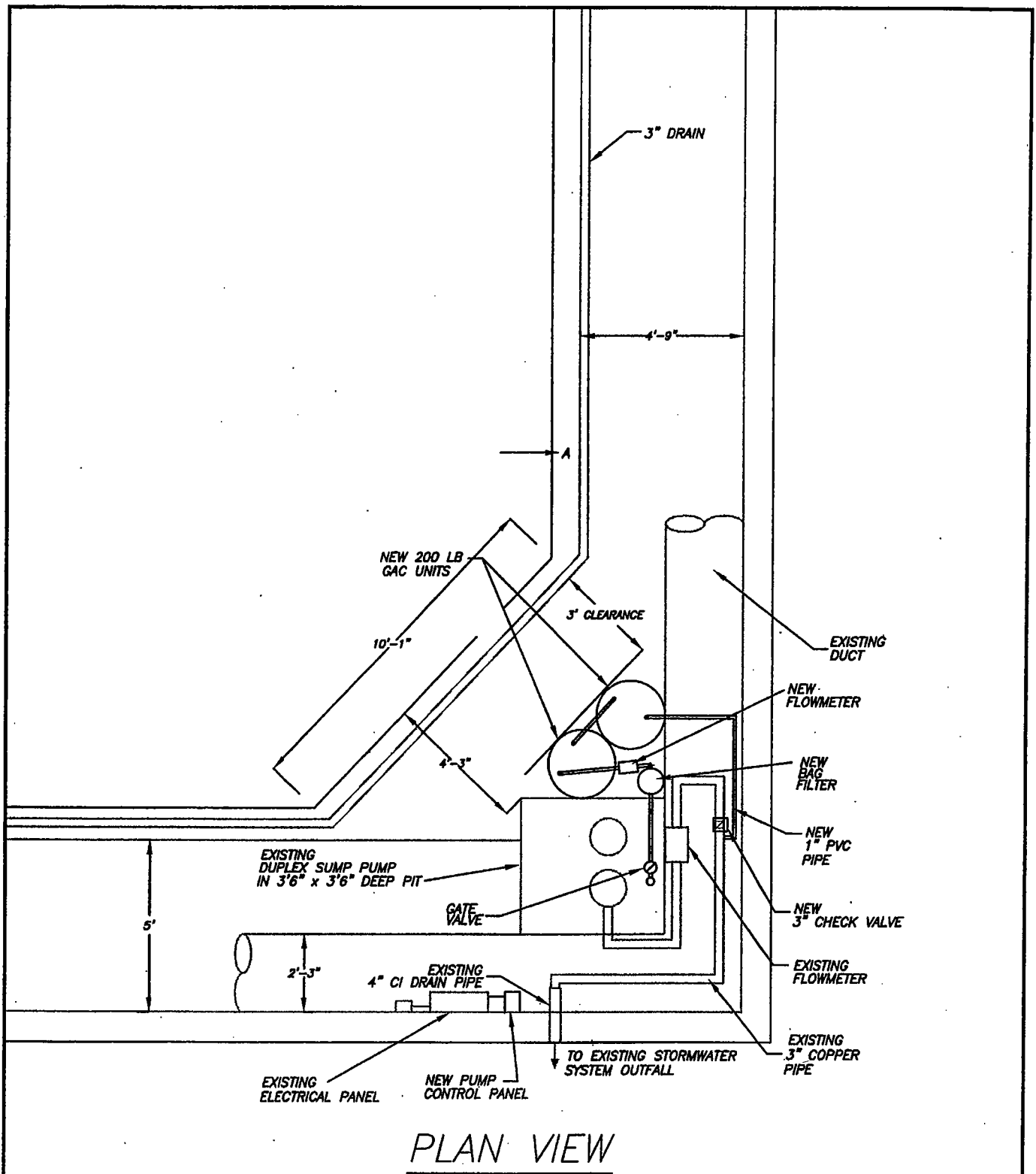
**SUMP TREATMENT
SYSTEM-SECTIONAL SCHEMATIC
AND SCHEDULES**
HAMPTON TOLL PLAZA
HAMPTON, NEW HAMPSHIRE

PREPARED FOR:

NH DOT

FIGURE NO.

2



Jacques Whitford Company, Inc.



JACQUES WHITFORD LOCATION:
PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED: 03-05-02	DESIGNED BY: APH	DRAWN BY: JSC	CHECKED BY: DAG	REVIEWED BY: CRG
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

PROJECT NAME/TITLE NAME:
HAMPTON TOLL

PROJECT NUMBER/PHASE:
NHP99188/12

SCALE:
1/4" = 1'

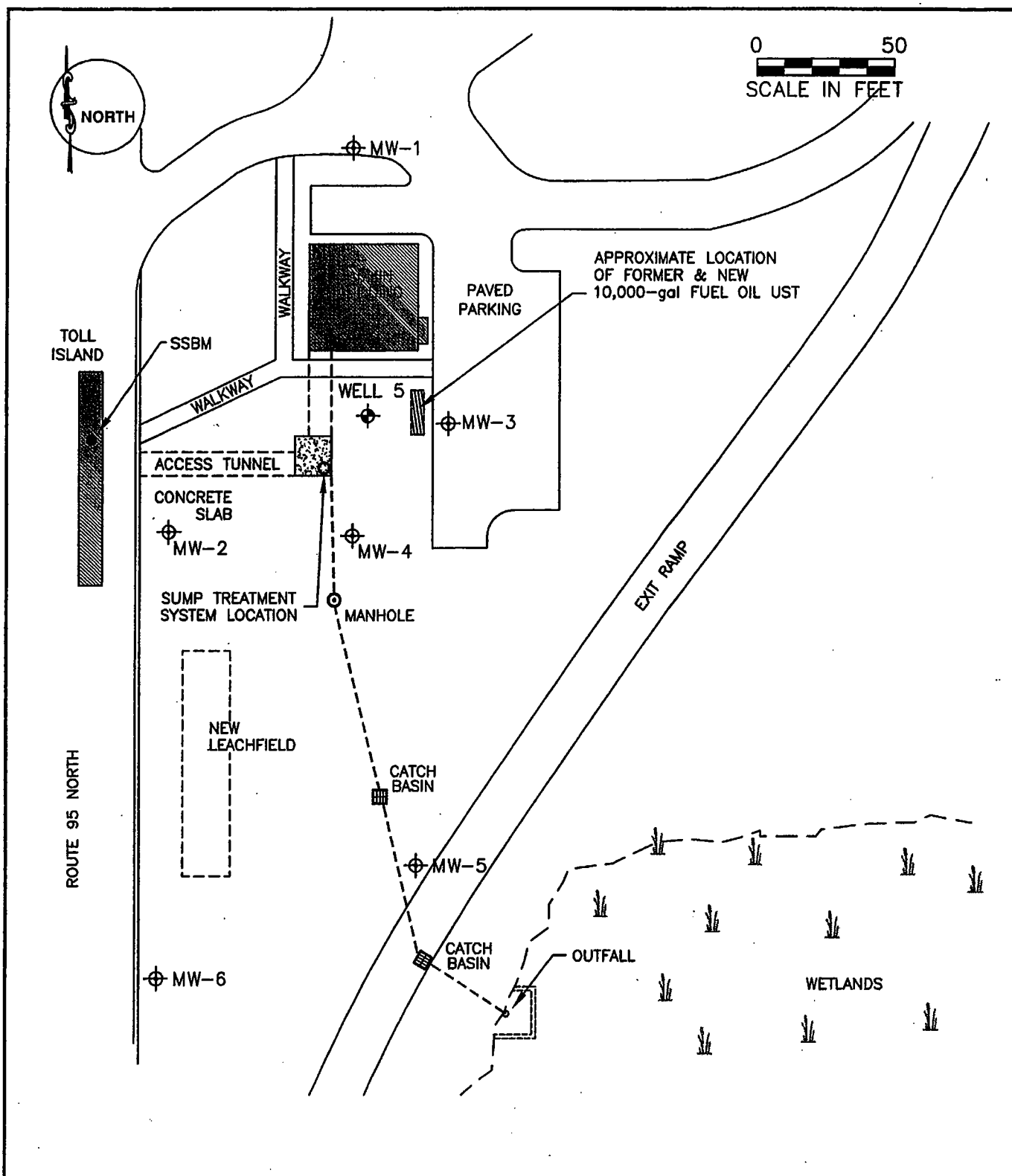
DRAWING TITLE:

SUMP TREATMENT
SYSTEM AS BUILT
HAMPTON TOLL PLAZA
HAMPTON, NEW HAMPSHIRE

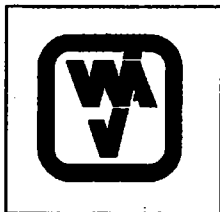
PREPARED FOR:
NHDOT

FIGURE NO.

3



Jacques Whitford Company, Inc.



JACQUES WHITFORD OFFICE:
PORTSMOUTH, NEW HAMPSHIRE

DATE PREPARED: 4/30/01	DESIGNED BY: JSC	DRAWN BY: BSB	CHECKED BY: JSC	REVIEWED BY: --
REVISION DATE: 6/14/02	REVISION NO: A	DRAWN BY: JSC	CHECKED BY: JSC	REVIEWED BY: --
PROJECT NAME/FILE NAME: NHDOT HAMP/A50SITEA	PROJECT NUMBER/PHASE: 99188/14	SCALE: 1"=50'	PREPARED FOR: NEW HAMPSHIRE D.O.T.	

DRAWING TITLE:

SITE PLAN
SUMP TREATMENT SYSTEM
N.H.D.O.T. HAMPTON, NEW HAMPSHIRE

FIGURE NO. **4**